IN THE CLAIMS:

1. (currently amended) A distributed feedback laser comprising:

a guide layer including a plurality of waveguides coupled in a ~~stepped~~ multi-branch structure stepped to form a light path, the guide layer being used as a transmission medium for light having a predetermined wavelength; and

~~an active layer~~,

formed on the guide layer, an active layer for oscillating light, said structure being configured to split, in favor of a branch leading away from said path, a power of light proceeding along said path so that a branch other than the favored branch follows a next step in said structure.

~~wherein light is branched according to a predetermined ratio while proceeding from a higher waveguide to a lower waveguide within the guide layer~~.

2. (original) The distributed feedback laser as claimed in claim 1, wherein the distributed feedback laser further comprises a grating which is formed under the guide layer and has a predetermined period.

3. (currently amended) The distributed feedback laser as claimed in claim 2, wherein the grating is formed under a topmost step in said structure~~lowest waveguide in the guide layer~~.

4. (original) The distributed feedback laser as claimed in claim 1, wherein the

distributed feedback laser further comprises:

a semiconductor substrate;

a lower clad layer interposed between the semiconductor substrate and the guide layer; and

an upper clad layer on the active layer and the lower clad layer so as to surround the guide layer.

5. (original) The distributed feedback laser as claimed in claim 4, wherein the distributed feedback laser further comprises:

a upper electrode formed on the upper clad layer; and

a lower electrode formed under the semiconductor substrate.

6. (currently amended) A distributed feedback laser comprising:

a guide layer having a plurality of waveguides~~higher and a lower waveguide~~ coupled in a stepped branch structure, wherein light is transmitted having a predetermined wavelength; and

~~an active layer~~,

formed on the guide layer, an active layer for oscillating light, said structure being configured such that

~~wherein~~ light is repeatedly branched ~~according to a predetermined ratio while proceeding~~so that diverted light proceeds from one step to a next in said structure~~from the higher waveguide to the lower waveguide~~.

7. (original) The distributed feedback laser as claimed in claim 6, wherein the distributed feedback laser further includes a grating that is formed under the guide layer and has a predetermined period.

8. (currently amended) The distributed feedback laser as claimed in claim 7, wherein the grating is formed under a topmost step of said structure~~the lower waveguide in the guide layer~~.

9. (canceled)

10. (currently amended) The distributed feedback laser ~~as claimed in claim 9~~comprising:

a guide layer having at least a higher and a lower waveguide coupled in a hierarchal Y-structure; and

an active layer, formed on the guide layer, for oscillating light, wherein light is transmitted having a predetermined wavelength, and the light is subjected to loss, using the hierarchal Y-structure, according to a predetermined ratio while proceeding in a predetermined direction in the laser, wherein the distributed feedback laser further includes a grating that is formed under the guide layer and has a predetermined period.

11. (new) The laser of claim 10, wherein the laser has an end intended for

losslessly outputting light by means of said structure, and a highest of the waveguides in the hierarchy is disposed at said end.

12. (new) The laser of claim 1, wherein said structure is further configured to repeatedly perform the splitting in favor such that, for a given repetition, a branch other than that favored, forms a next step in said structure.

13. (new) The laser of claim 1, wherein said next step is a higher step in said structure.

14. (new) The laser of claim 6, wherein the repeated branching is according to a predetermined, uneven ratio.

15. (new) The laser of claim 6, wherein the proceeding from one step to a next is step-wise upward in said structure.

16. (new) The laser of claim 8, further comprising an upper electrode formed above and along said topmost step.